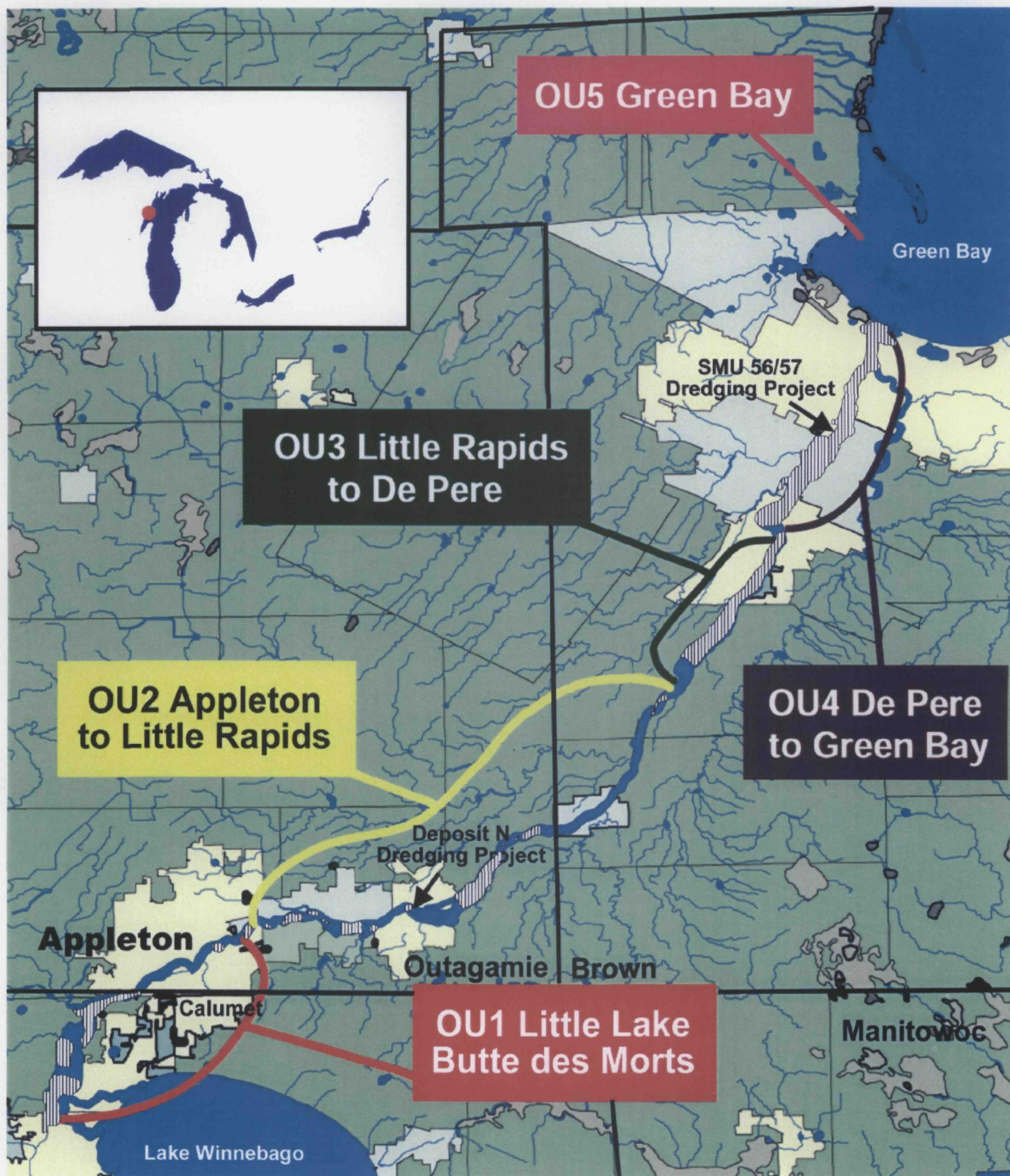


# Lower Fox River PCB Contaminated Sediments Deposits

EPA Region 5 Records Ctr.



351892



 Contaminated Sediments

1 0 1 2 3 4

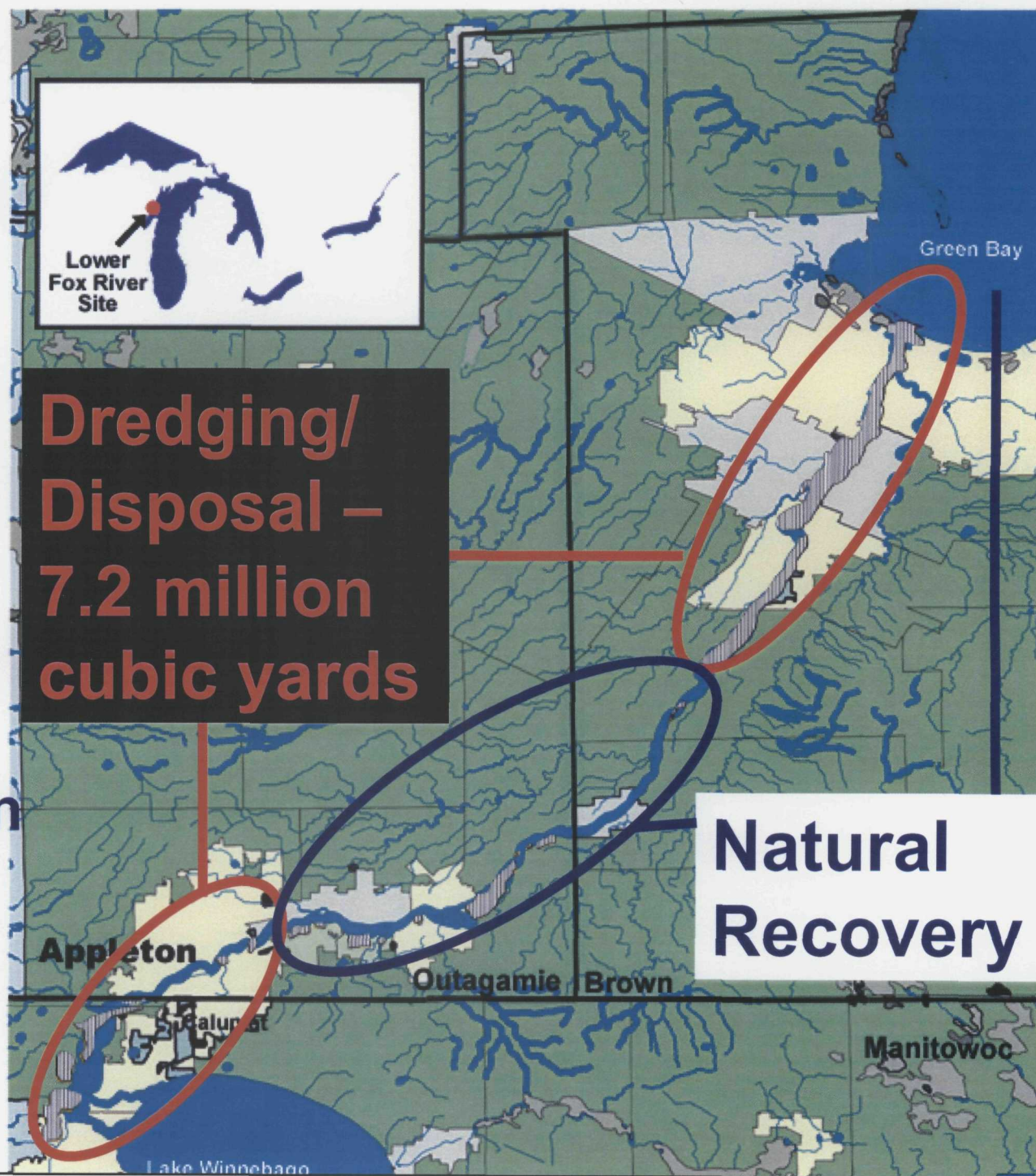




# Remedy Decisions

Total Cost:  
\$400 million

- Dredging: \$350 million
- MNR \$50 million



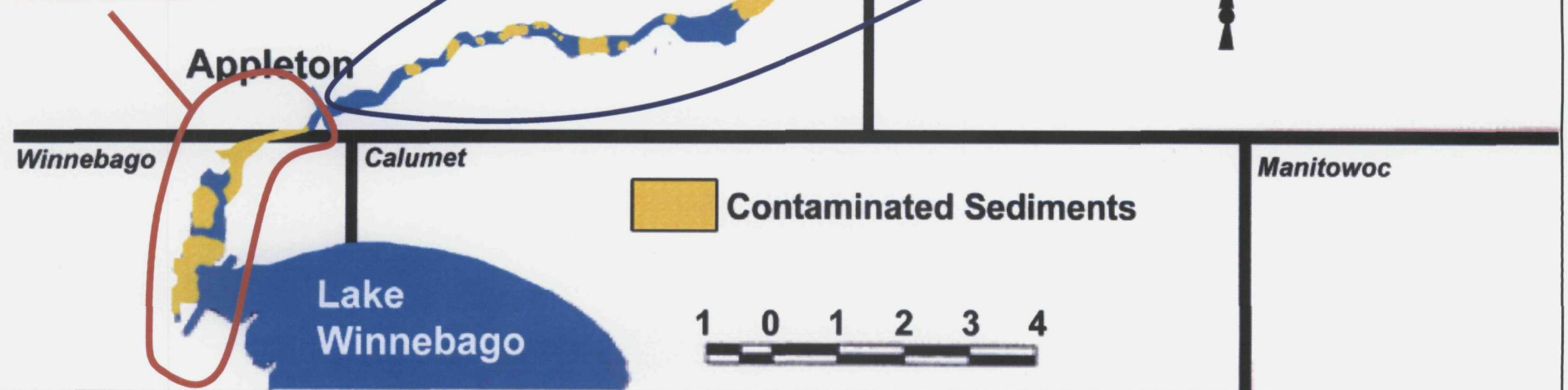
# **Fox River and Lower Green Bay Overview of Current Activities**

- Downstream (“OU 2-5”) Design
  - Started March 2004
  - Pre-design sampling currently
  - Georgia Pacific and NCR
- Upstream (“OU 1”) cleanup
  - Starting September 13<sup>th</sup>
  - WTM I and Glatfelter Company



# Fox River cleanup progress

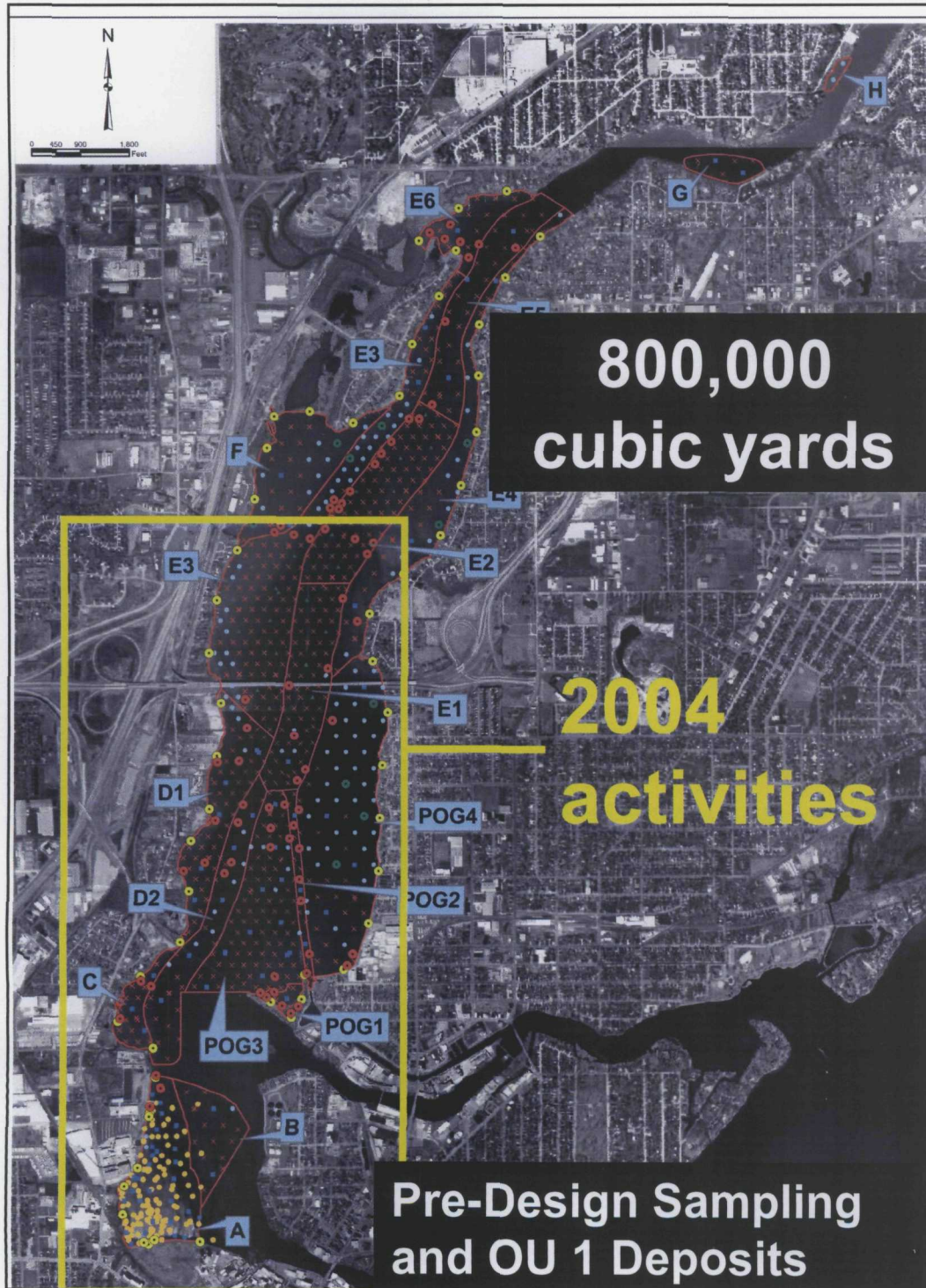
Upstream  
Cleanup  
Start  
9/13/04



# Fox River upstream cleanup

<b>Milestone</b>	<b>Date</b>
Record of Decision	December 2002
Consent Order Agreement – Design	July 2003
Consent Decree Agreement - for cleanup	April 2004
Cleanup start	September 13, 2004

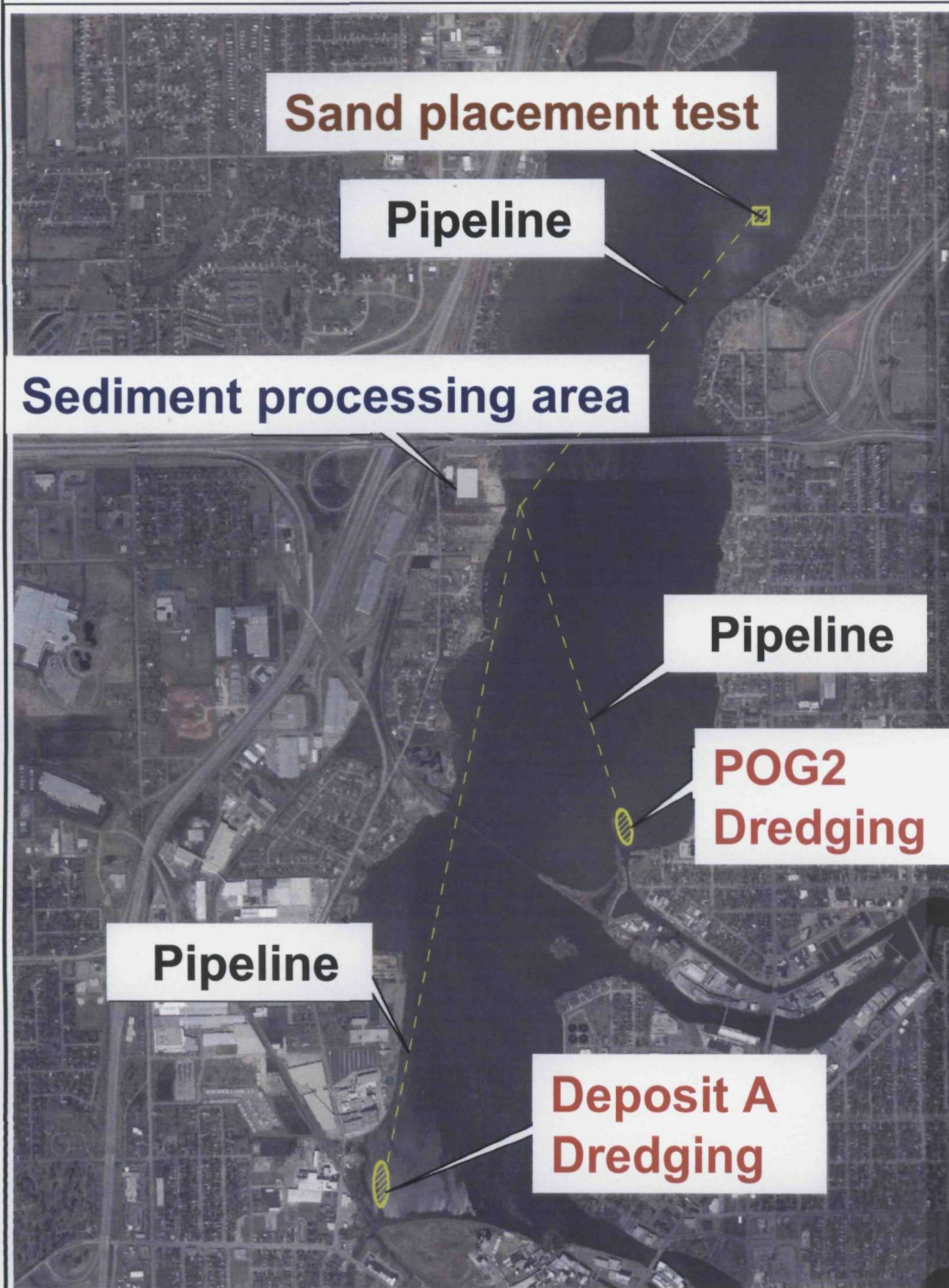




## Upstream cleanup

- Dredge sediments more than 1 ppm
- Dewater dredge slurry
- Trucking & Landfill disposal
- Est. cost \$66 MM





LOWER FOX RIVER OPERABLE UNIT 1

## 2004 Cleanup Start

- September 13<sup>th</sup> start
- **Dredging**
  - **Deposit A:**  
September 13th to mid-October
  - **POG2:**  
mid- to late-October
- **Dewater dredge slurry**
- **Sand placement test:**  
late-October to mid-November



# Sediment processing area and water treatment plant



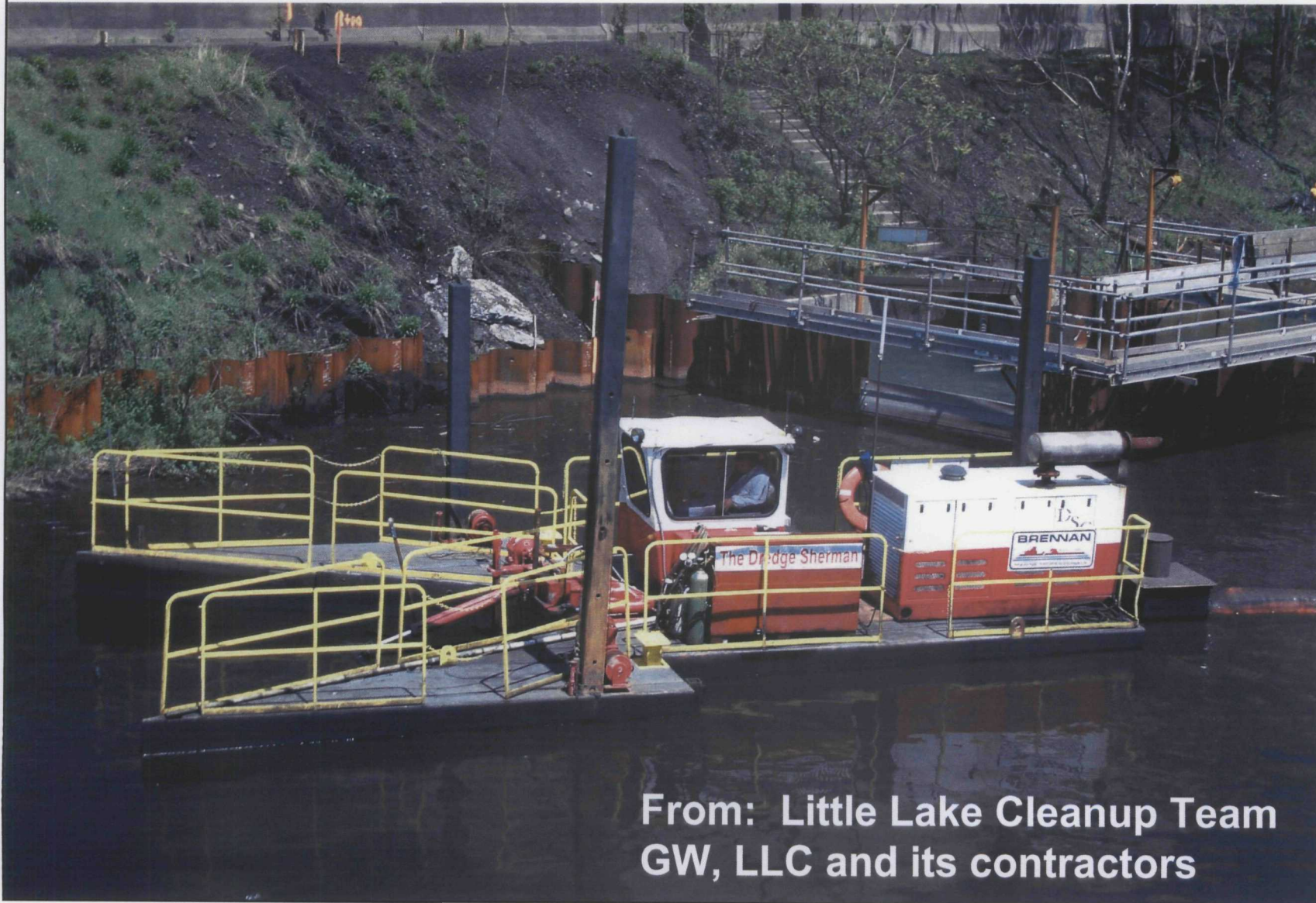


# **Dewatering Pad and Water Treatment Facility August 19, 2004**





# Hydraulic dredge



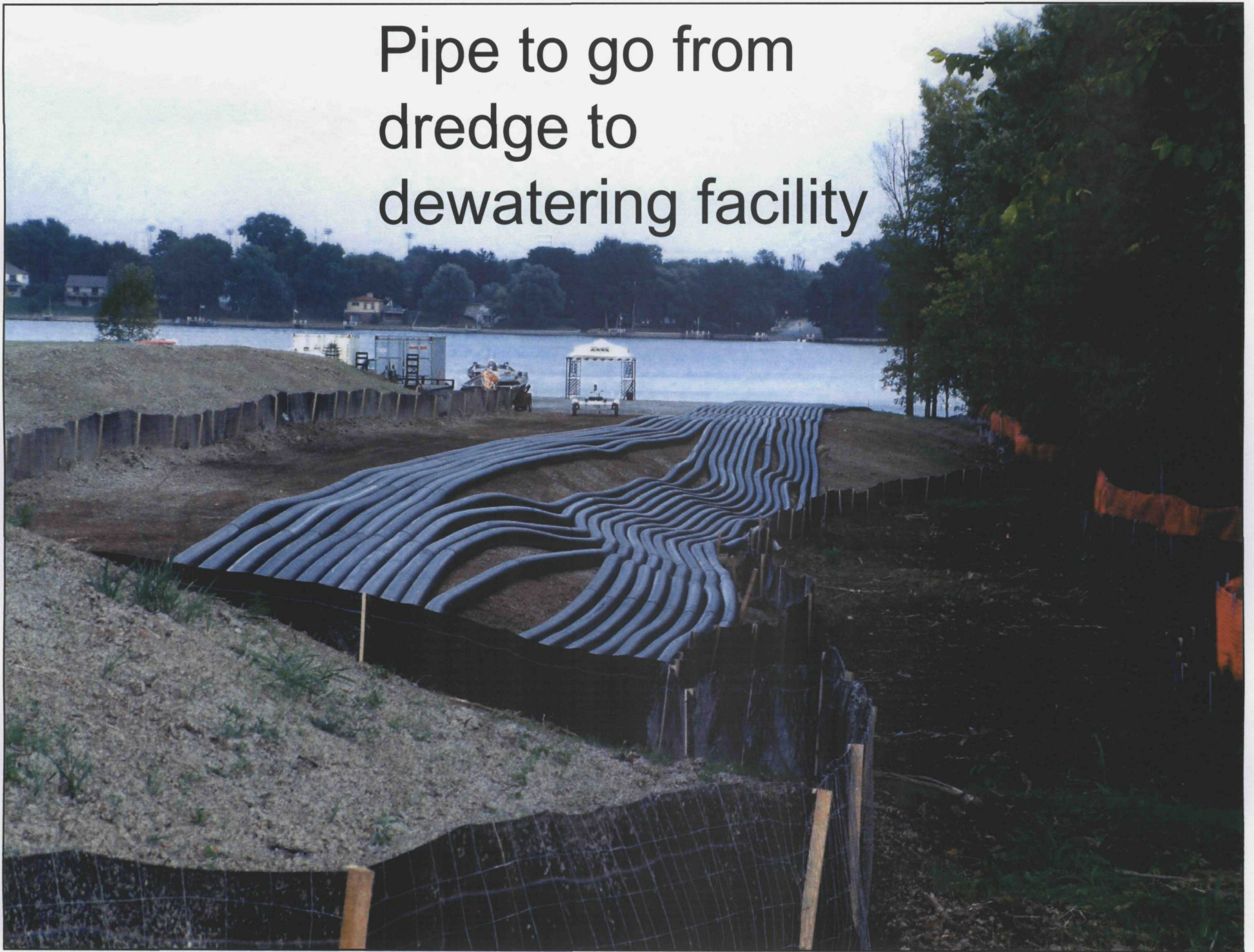
8-inch-  
pipeline  
to  
geotubes



From: Little Lake Cleanup Team  
GW, LLC and its contractors

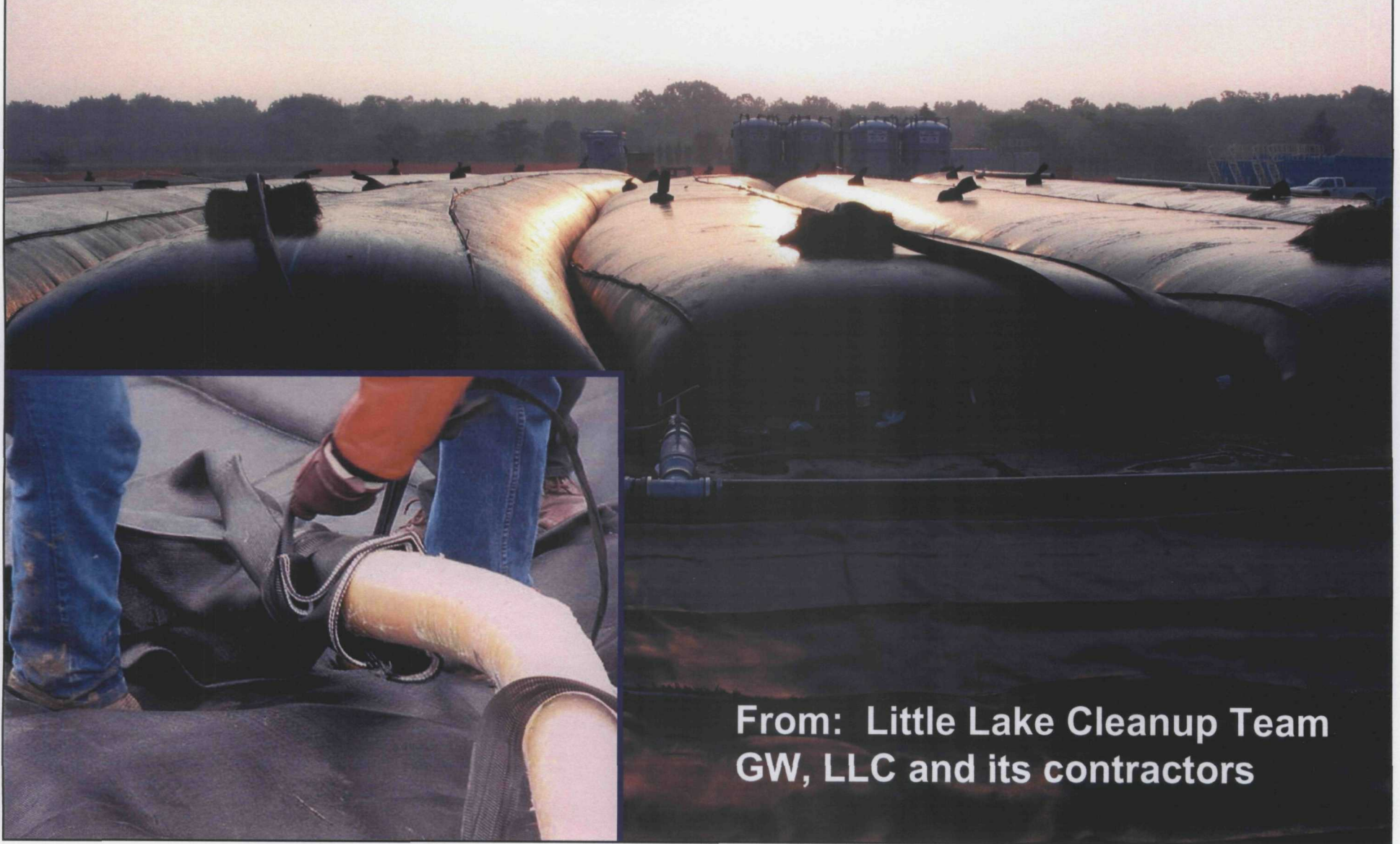


Pipe to go from  
dredge to  
dewatering facility





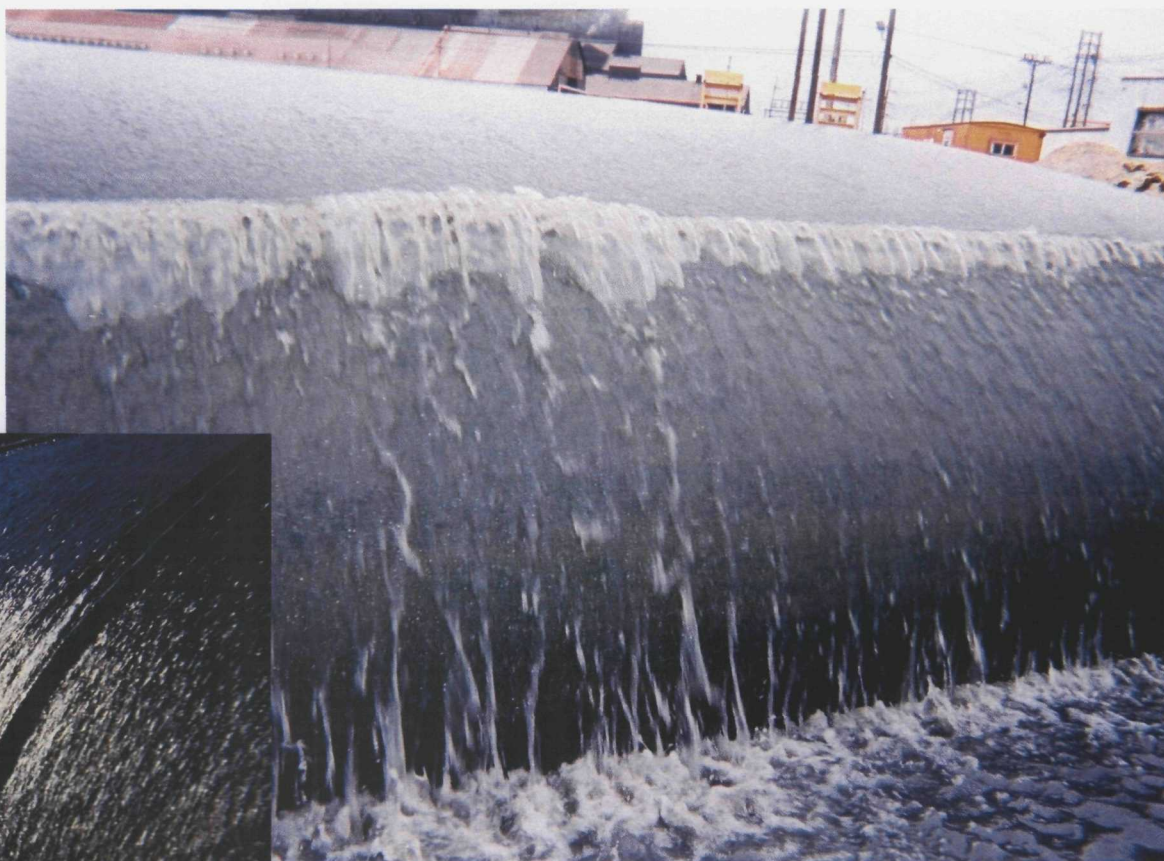
# Dewater sediment in 60-foot circumference geotextile tubes



From: Little Lake Cleanup Team  
GW, LLC and its contractors

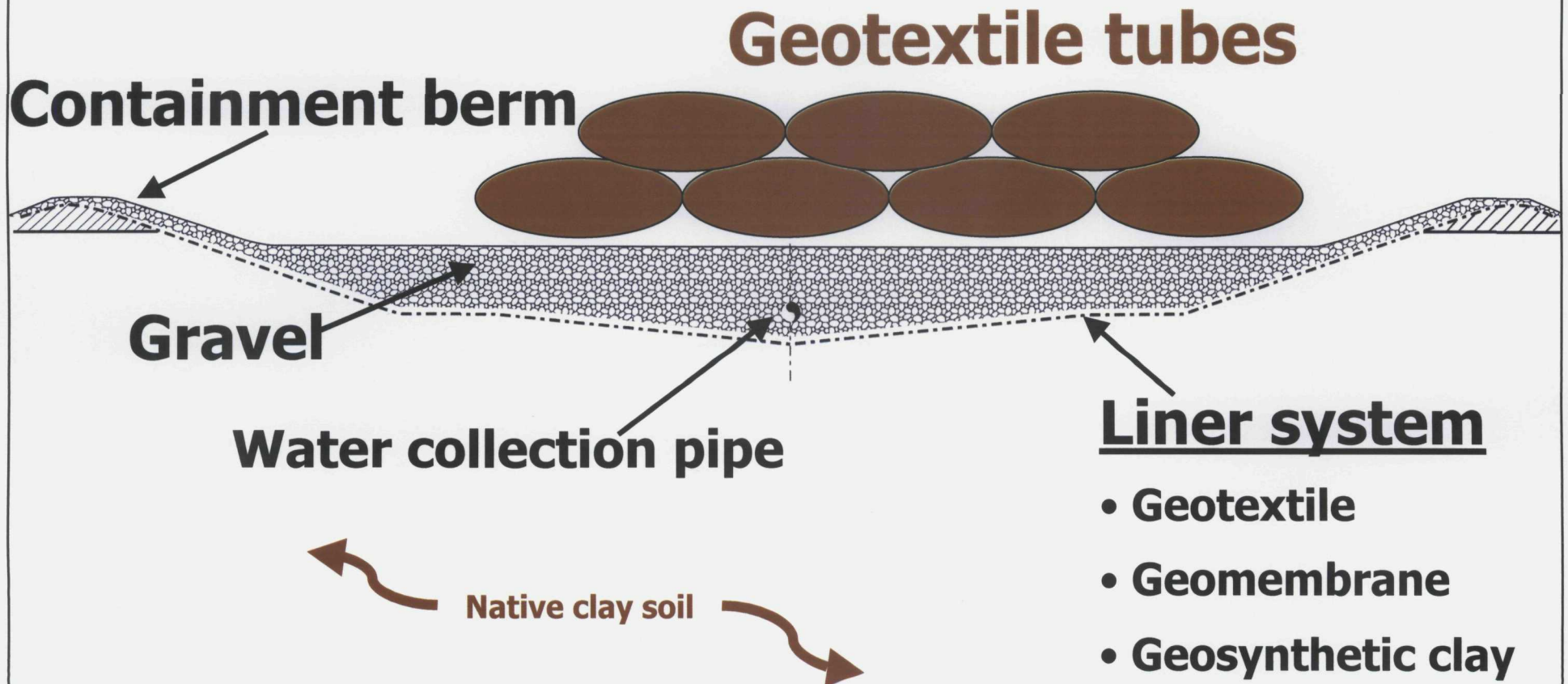


# Solids captured in geotextile tubes & water drains out



**From: Little Lake Cleanup Team  
GW, LLC and its contractors**

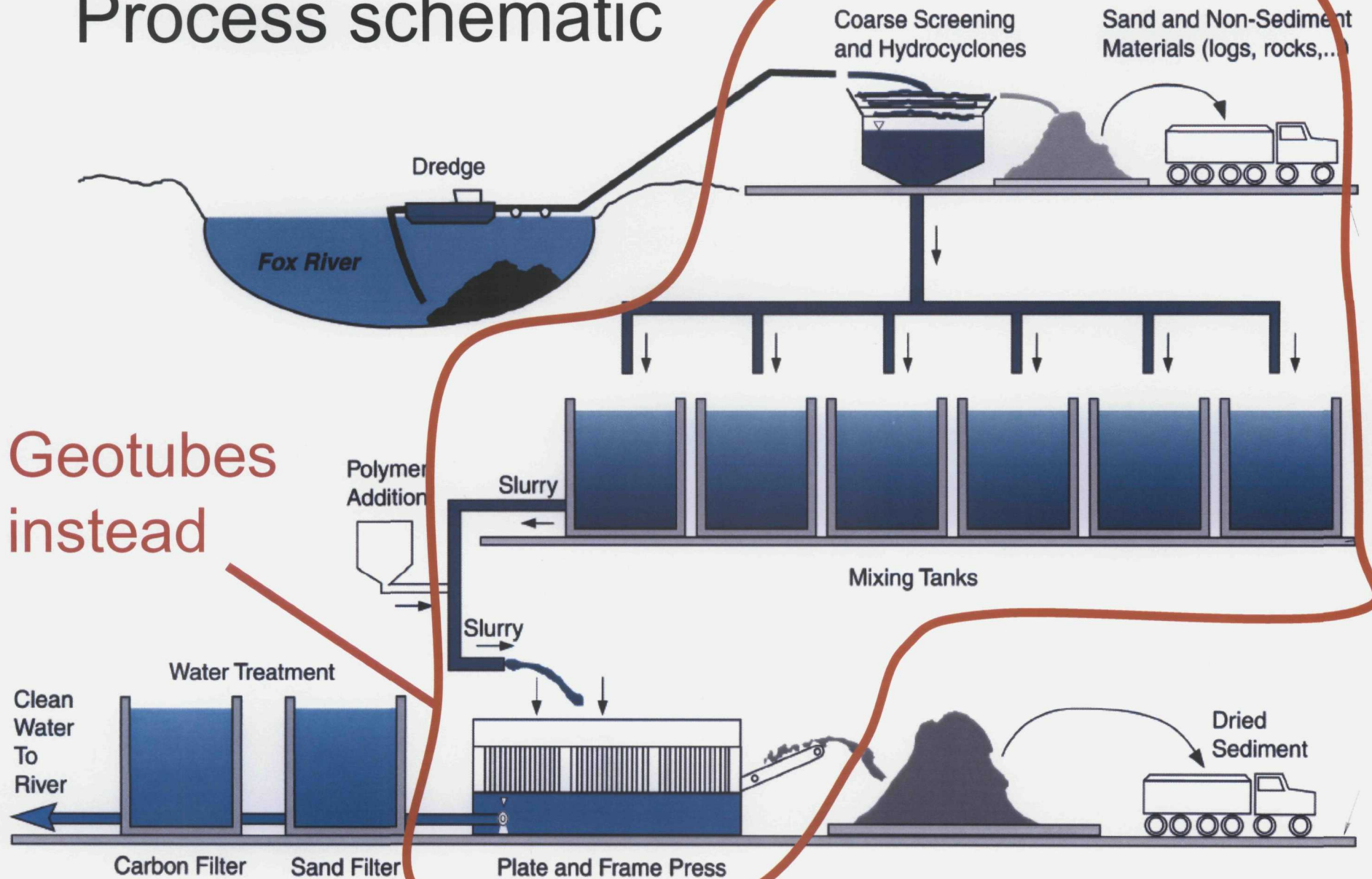
# Geotextile tubes dewatering pad



From: Little Lake Cleanup Team  
GW, LLC and its contractors

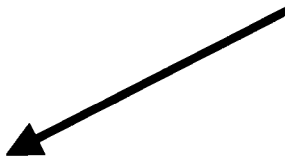


# Process schematic



From: Ft. James Corp., 2001 Final Report,  
2000 Sediment Management Unit 56/57 Project

# **Dredge slurry dewatering**

- **Geotextile tubes (a.k.a., “geotubes”)**
  - Pump slurry to tubes & let water drain out
  - Replaces presses squeezing out water
- **Advantages** 
  1. Less labor - lower cost
  2. Dredging and dewatering operate independently (flexibility and less “down-time”)
  3. Less potential for PCB volatilization
- **Disadvantage: more space needed**



# Loading sediment from geotextile tubes for transport to landfill



**From: Little Lake Cleanup Team  
GW, LLC and its contractors**





# Capping Contingency possible supplement to dredging

## Restrictions

1. Post-capping water depth 3-feet+
2. Outside navigation channels
3. Outside pipelines, utilities, bridge piers, etc.
4. PCBs less than 50 ppm



# Aggressive schedule on-track

- Careful attention to ARARs and coordination with WDNR & EPA
- Companies did Cultural Resources Survey when not obligated
- Communication & project management (e.g., weekly teleconference updates)
- Timely review and approvals by agencies



# THE POST-CRESCENT

www.postcrescent.com

WEDNESDAY, JANUARY 8, 2003

SERVING WISCONSIN'S FOX RIVER VALLEY SINCE 1853

504

## Fox River cleanup to begin in 2004

### Limited scope of PCB effort defended

By Ed Cuthane  
Post-Crescent staff writer

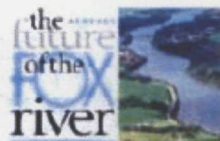
Government managers of the Fox River PCB cleanup said critics of their decision to issue a partial decision Tuesday have likely misunderstood their motives.

Even though the Record of Decision, or ROD, only covers part of the river, government regulators say the cleanup will begin in 2004.

Though environmental groups contend the current approach is not aggressive enough, Tom Skinner, Region 5 director of the U.S. Environmental Protection Agency, said the idea is to speed the cleanup, not slow it down.

"Our foot is on the accelerator, and it is not coming off," Skinner said. "This should not be taken as an indicator that we are slowing down. We need to make sure the problem gets cleaned up and that the river is safe for folks."

The partial ROD available for public inspection is the final cleanup plan for 26 of the 39-mile river downstream from the Menasha dam to the dam at Little Rapids in Brown County, roughly halfway between Kaukauna and De Pere. It calls for



several area paper companies to spend an estimated \$76.1 million dredging PCB-contaminated sediments in Little Lake Butte des Morts, a 6-mile-long widening of the Fox River between the dam at Menasha and the first Appleton dam, and monitoring PCB levels in the less-contaminated stretch between Appleton and Little Rapids.

The second and final phase of the ROD will be issued in June, regulators said, to cover the remaining 13 miles of river and the waters of Green Bay where the vast majority of PCB pollution is located.

When complete, the two decisions will make final a cleanup plan issued by the agencies in October.

2001 that calls for seven area paper companies to spend an estimated \$308 million to dredge and landfill river sediment with PCB concentrations greater than 1.0 parts per million from parts of the river between Little Lake Butte des Morts and the bay of Green Bay.

PCBs or polychlorinated biphenyls, a class of long-lasting industrial chemicals discharged into the river by several area paper companies between 1954

See RIVER, A-6

#### \$76.1 MILLION PLAN

■ Little Lake Butte des Morts: Dredge 784,000 cubic yards of PCB-contaminated sediments at a cost of \$46.2 million

■ Appleton downstream to Little Rapids in Brown County: Monitor contamination at cost of \$9.9 million

#### PCBs and your health

**Main use**  
Fire preventive and insulator in the manufacture of electrical transformers, generators  
**Some other uses**  
Hydraulic fluids, fire retardants, lubricants, inks, carbonless copy paper



#### Why PCBs are still a threat

1. PCBs released decades ago by industrial plants persist in soil and water.
2. In rivers and streams, PCBs accumulate in fish sediment. As bigger fish eat small fish, they become contaminated.
3. When people, wildlife eat contaminated fish, they accumulate all the PCBs eaten by everything below them in the food chain.

#### Health hazards

- Can compromise the immune and nervous systems
- Probable cause of cancer in people; known cause in animals
- Especially risky for pregnant women; can lead to premature birth, low birth weight, child with lowered IQ or learning problems

Source: Environmental Protection Agency

**INSIDE**  
more coverage

**PLAN'S FULL TEXT**  
Where to see it / A-6

**INDUSTRY REACTS**  
Effects debated / A-7

**FOX RIVER TIMELINE**  
History of cleanup / A-7



# PCB burial attacked



A LARGE CROWD at Neenah Public Library's Shattuck Community Room listens to Roger Grimes of the U.S. Environmental Protection Agency discuss the PCB cleanup process of the upper section of the lower Fox River as he looks at a screen presentation Wednesday. The meeting also included the U.S. Department of Justice.

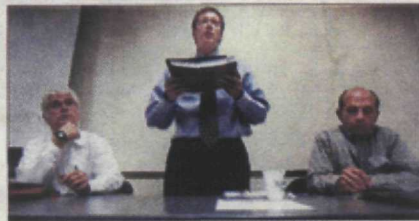
Post-Crescent photos by Mike De Sisti

## Vinland residents change course of hearing

By Ed Culhane  
Post-Crescent staff writer

NEENAH — Environmental regulators faced an aggressive and largely unhappy crowd Wednesday as they sought to explain the consent decree that will fund the cleanup of PCBs in Little Lake Butte des Morts.

The problem was that few of the more than 120 people that crowded into a meeting room at the Neenah Public Library wanted to talk about the consent decree. Most were from the Town of Vinland. They wanted to talk about the government's decision to landfill PCB sediments from the lake, since the probable landfill site is in



RANDY STONE (center) of the U.S. Department of Justice holds a copy of the consent decree. Roger Grimes (left) of the U.S. Environmental Protection Agency and Greg Hill of the state Department of Natural Resources were also present at Wednesday's meeting.



Post-Crescent graphic

They believe the cleanup should be delayed, if necessary, while questions about the cost of the Minery option are answered.

PCBs, or polychlorinated biphenyls, are man-made chemicals once used in the production of carbonless paper. Seven paper

### CONSENT DECREE

The U.S. Department of Justice will accept formal written comments on the consent decree until Nov. 17. Comments should be addressed to the Assistant Attorney General, Environment and Natural Resources Division, P.O. Box 7611, U.S. Department of Justice, Washington, DC, 20044-7611, and should refer to United States and the State of Wisconsin v. P.H. Glatfelter Company and WTM 1 Company, Civil Action No. 03-C-999 (E.D. Wis.) and D.J. Ref. 90-11-2-1045/2. During the public comment period, the consent decree can also be found online at [www.usdoj.gov/enrd/open.html](http://www.usdoj.gov/enrd/open.html). Scroll down to "U.S. v. P.H. Glatfelter Company."

## Disposal controversy (now moot)

- Vinland community opposed landfilling
  - Preference for melting
  - Agencies re-evaluated: confirmed landfill decision
- Different landfill selected – no opposition voiced



